JP2004-086880

FIG. 1

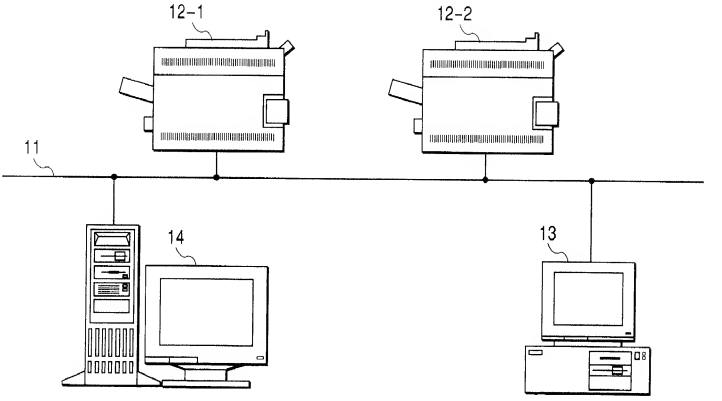


FIG. 2

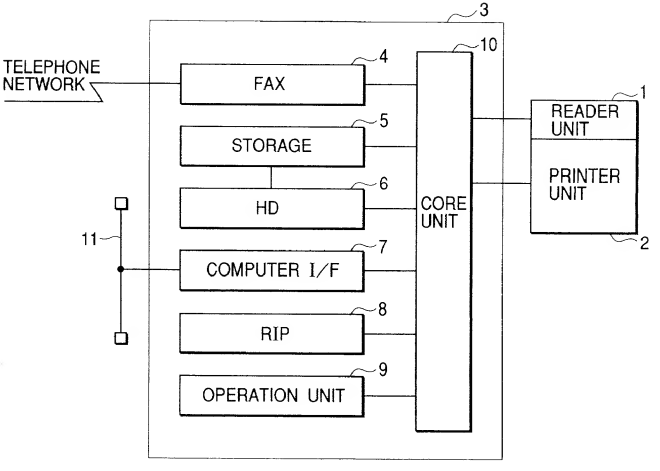
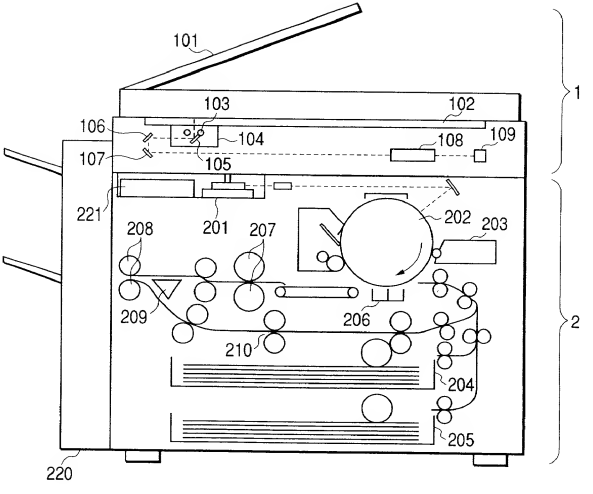

3
10
TELEPHONE NETWORK
4
FAX
5
STORAGE
6
HD
11
7
COMPUTER I/F
8
RIP
9
OPERATION UNIT
CORE UNIT
1
READER UNIT
PRINTER UNIT
2

FIG. 3


101
103
102
106
104
108
109
107
105
1
221
208
201
207
202
203
209
206
2
210
204
205
220

FOUND DOCUMENT

FIG. 4

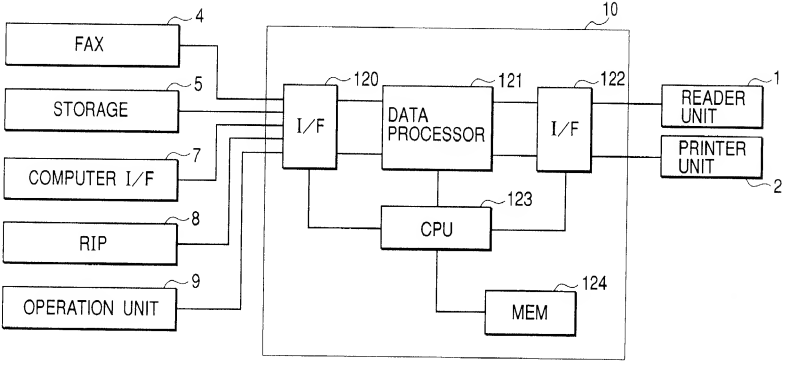


FIG. 5

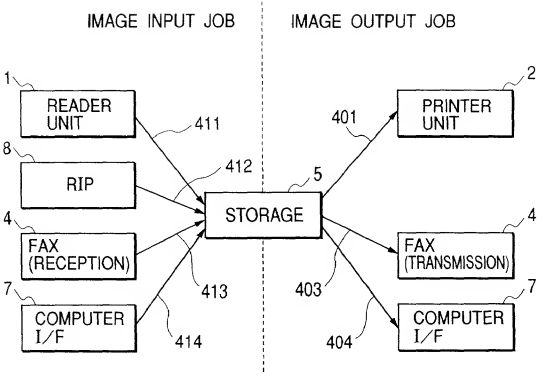


IMAGE INPUT JOB
IMAGE OUTPUT JOB
1
READER UNIT
411
8
RIP
412
4
FAX (RECEPTION)
7
COMPUTER I/F
413
414
5
STORAGE
401
2
PRINTER UNIT
4
FAX (TRANSMISSION)
403
7
COMPUTER I/F
404

FIG. 6

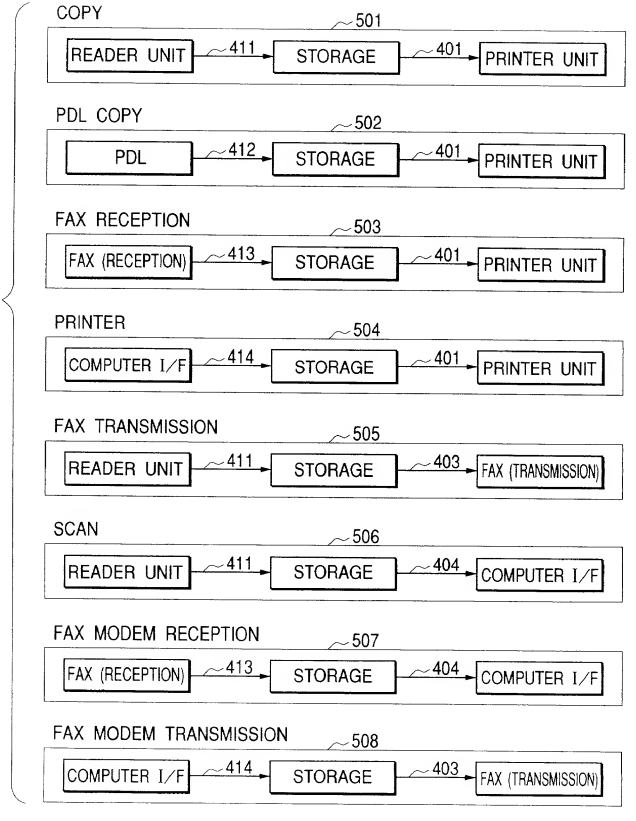

COPY
501
READER UNIT
411
STORAGE
401
PRINTER UNIT
PDL COPY
502
PDL
412
STORAGE
401
PRINTER UNIT
FAX RECEPTION
503
FAX (RECEPTION)
413
STORAGE
401
PRINTER UNIT
PRINTER
504
COMPUTER I/F
414
STORAGE
401
PRINTER UNIT
FAX TRANSMISSION
505
READER UNIT
411
STORAGE
403
FAX (TRANSMISSION)
SCAN
506
READER UNIT
411
STORAGE
404
COMPUTER I/F
FAX MODEM RECEPTION
507
FAX (RECEPTION)
413
STORAGE
404
COMPUTER I/F
FAX MODEM TRANSMISSION
508
COMPUTER I/F
414
STORAGE
403
FAX (TRANSMISSION)

FIG. 7

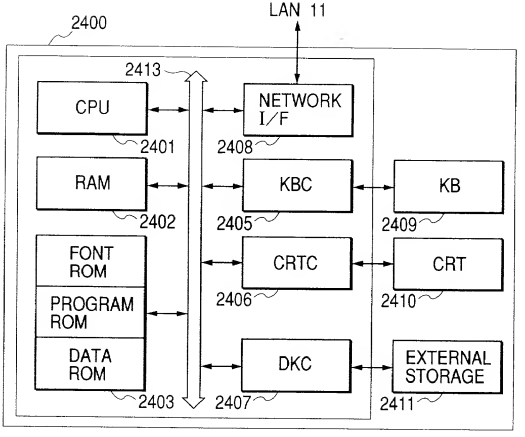
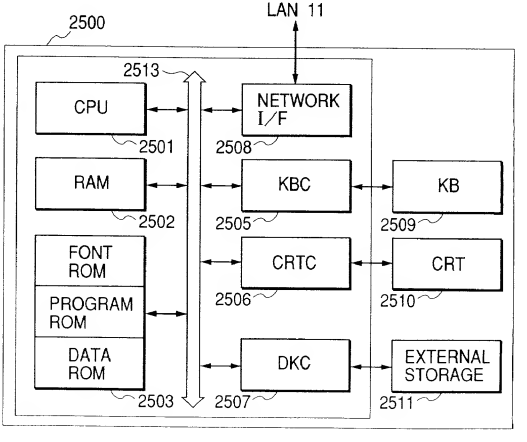

LAN 11
2400
2413
CPU
2401
NETWORK I/F
2408
RAM
2402
KBC
2405
KB
2409
FONT ROM
PROGRAM ROM
DATA ROM
2403
CRTC
2406
CRT
2410
DKC
2407
EXTERNAL STORAGE
2411

FIG. 8


LAN 11
2500
2513
CPU
2501
NETWORK I/F
2508
RAM
2502
KBC
2505
KB
2509
FONT ROM
PROGRAM ROM
DATA ROM
2503
CRTC
2506
CRT
2510
DKC
2507
EXTERNAL STORAGE
2511

FUCUMU 08062680

FIG. 9A

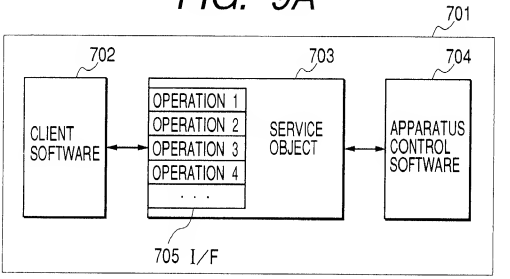


FIG. 9B

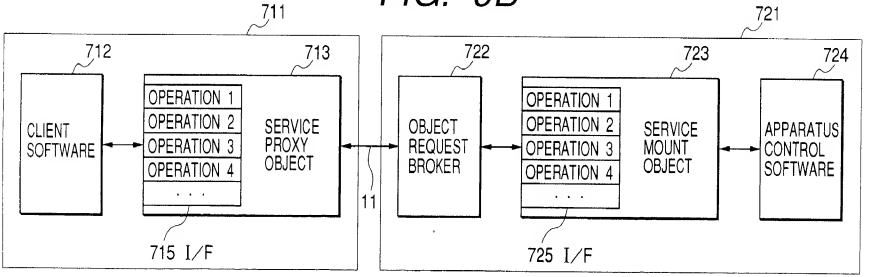


FIG. 10

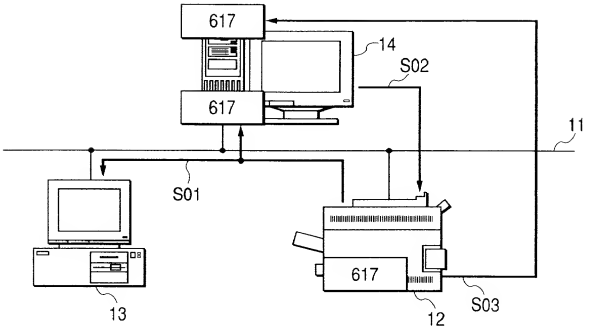
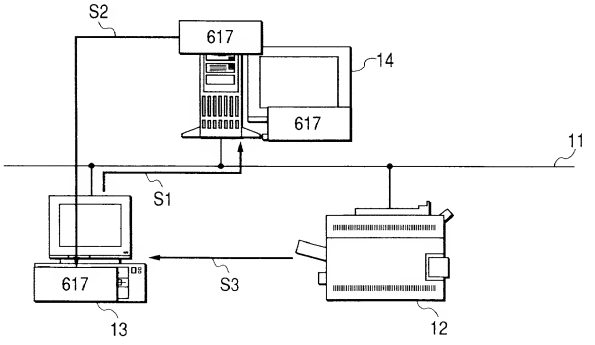


FIG. 11



JP2003-263280

FIG. 12

1801

DATE OF REGISTRATION	PERIPHERAL NAME	SERVICE	STAB DRIVER
1998.12.19	IMAGE I/O DAVICE 12-1	PDL PRINT	608-1
1998.12.19	IMAGE I/O DAVICE 12-1	PRINT	610-1
1998.12.19	IMAGE I/O DAVICE 12-1	SCAN	612-1
1998.12.19	IMAGE I/O DAVICE 12-1	FAX MODEM RECEPTION	614-1
1998.12.19	IMAGE I/O DAVICE 12-1	FAX MODEM TRANSMISSION	616-1
1998.12.23	IMAGE I/O DAVICE 12-2	PDL PRINT	608-2
1998.12.23	IMAGE I/O DAVICE 12-2	PRINT	610-2
1998.12.23	IMAGE I/O DAVICE 12-2	SCAN	612-2
1998.12.23	IMAGE I/O DAVICE 12-2	FAX MODEM RECEPTION	614-2
1998.12.23	IMAGE I/O DAVICE 12-2	FAX MODEM TRANSMISSION	616-2

FIG. 13

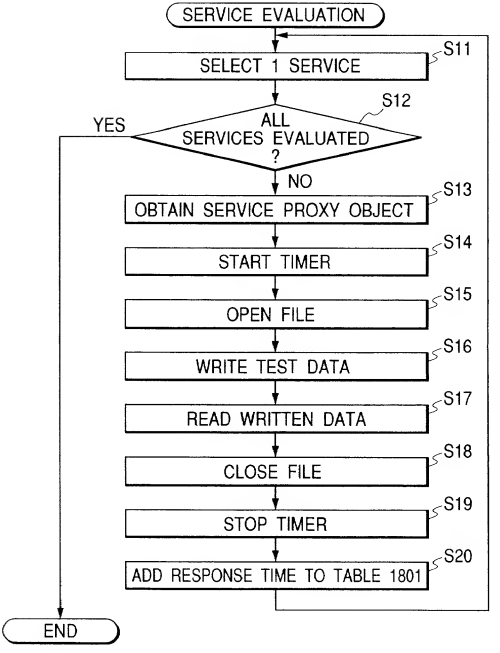

SERVICE EVALUATION
SELECT 1 SERVICE
S11
ALL SERVICES EVALUATED ?
S12
YES
NO
OBTAIN SERVICE PROXY OBJECT
S13
START TIMER
S14
OPEN FILE
S15
WRITE TEST DATA
S16
READ WRITTEN DATA
S17
CLOSE FILE
S18
STOP TIMER
S19
ADD RESPONSE TIME TO TABLE 1801
S20
END

FIG. 14

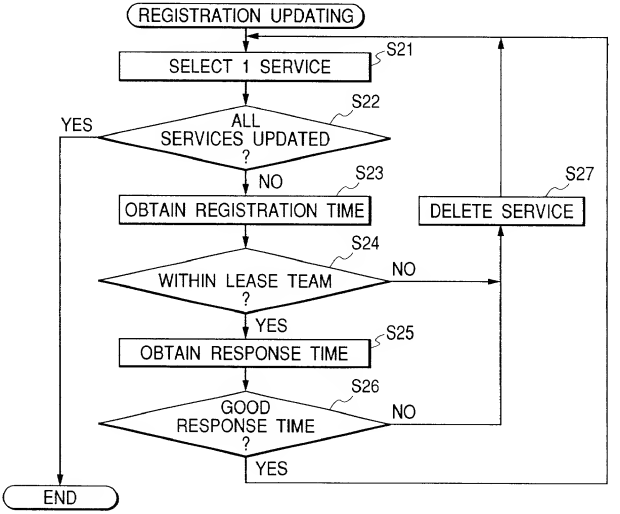

REGISTRATION UPDATING
SELECT 1 SERVICE
S21
ALL SERVICES UPDATED ?
S22
YES
NO
OBTAIN REGISTRATION TIME
S23
DELETE SERVICE
S27
WITHIN LEASE TEAM ?
S24
NO
YES
OBTAIN RESPONSE TIME
S25
GOOD RESPONSE TIME ?
S26
NO
YES
END

FIG. 15

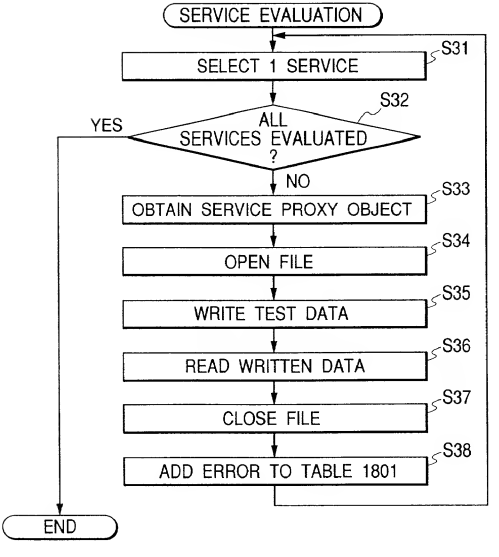

SERVICE EVALUATION
SELECT 1 SERVICE
S31
ALL SERVICES EVALUATED ?
S32
YES
NO
OBTAIN SERVICE PROXY OBJECT
S33
OPEN FILE
S34
WRITE TEST DATA
S35
READ WRITTEN DATA
S36
CLOSE FILE
S37
ADD ERROR TO TABLE 1801
S38
END

FIG. 16

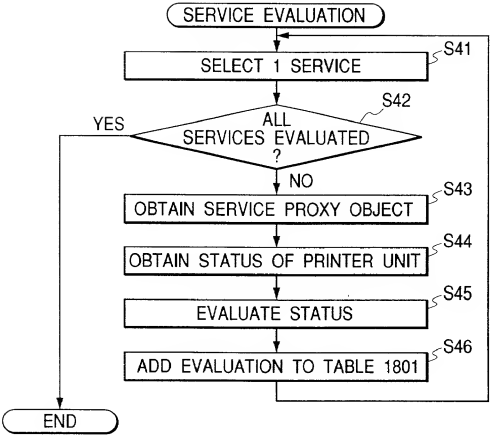

SERVICE EVALUATION
SELECT 1 SERVICE
S41
ALL SERVICES EVALUATED ?
S42
YES
NO
OBTAIN SERVICE PROXY OBJECT
S43
OBTAIN STATUS OF PRINTER UNIT
S44
EVALUATE STATUS
S45
ADD EVALUATION TO TABLE 1801
S46
END

FIG. 17

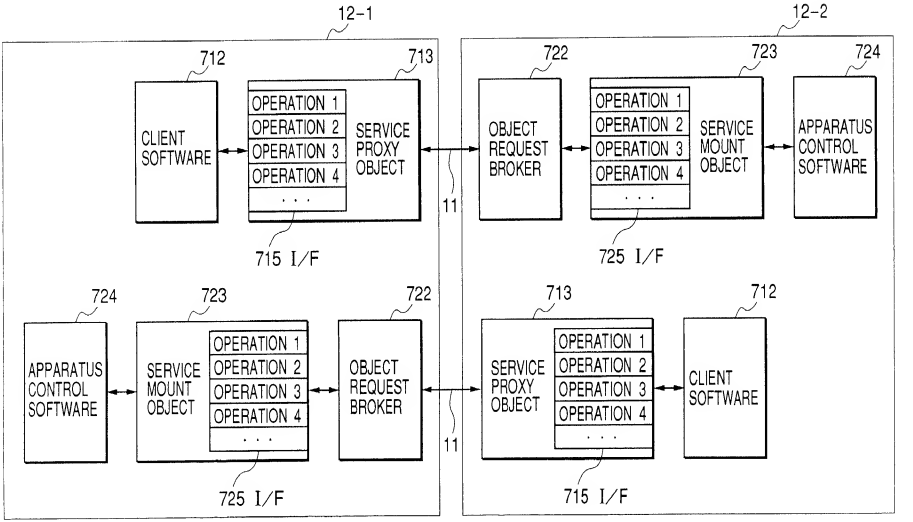

12-1
12-2
712
713
722
723
724
CLIENT SOFTWARE
OPERATION 1
OPERATION 2
OPERATION 3
OPERATION 4
SERVICE PROXY OBJECT
OBJECT REQUEST BROKER
SERVICE MOUNT OBJECT
APPARATUS CONTROL SOFTWARE
11
715 I/F
725 I/F

FIG. 18

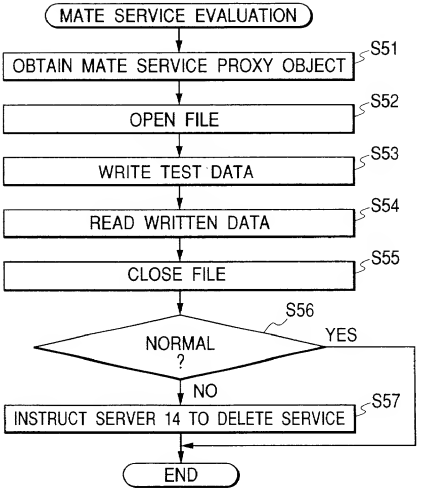

MATE SERVICE EVALUATION
OBTAIN MATE SERVICE PROXY OBJECT
S51
OPEN FILE
S52
WRITE TEST DATA
S53
READ WRITTEN DATA
S54
CLOSE FILE
S55
S56
NORMAL ?
YES
NO
INSTRUCT SERVER 14 TO DELETE SERVICE
S57
END

FIG. 19

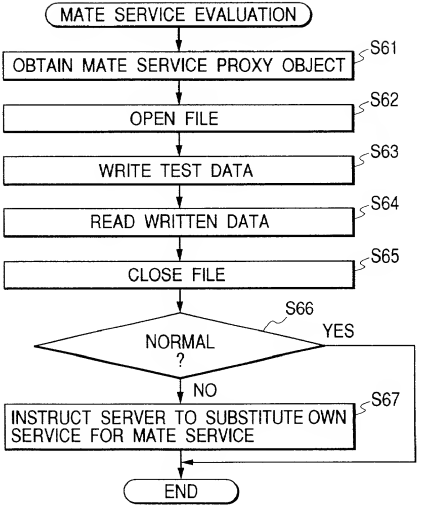

MATE SERVICE EVALUATION
OBTAIN MATE SERVICE PROXY OBJECT
S61
OPEN FILE
S62
WRITE TEST DATA
S63
READ WRITTEN DATA
S64
CLOSE FILE
S65
S66
NORMAL ?
YES
NO
INSTRUCT SERVER TO SUBSTITUTE OWN SERVICE FOR MATE SERVICE
S67
END

FIG. 20

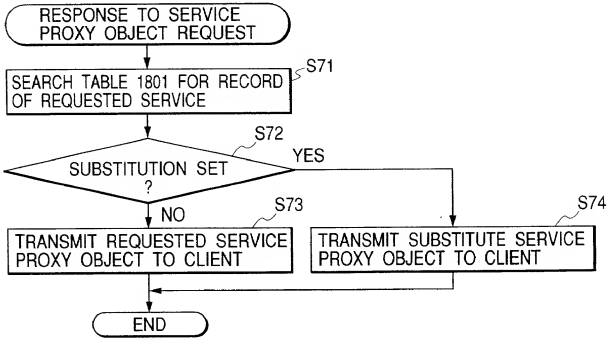

RESPONSE TO SERVICE PROXY OBJECT REQUEST
SEARCH TABLE 1801 FOR RECORD OF REQUESTED SERVICE
S71
SUBSTITUTION SET ?
S72
YES
NO
S73
TRANSMIT REQUESTED SERVICE PROXY OBJECT TO CLIENT
S74
TRANSMIT SUBSTITUTE SERVICE PROXY OBJECT TO CLIENT
END

FIG. 21

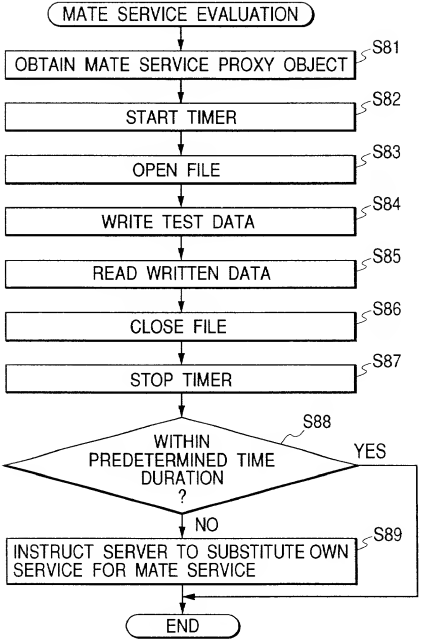
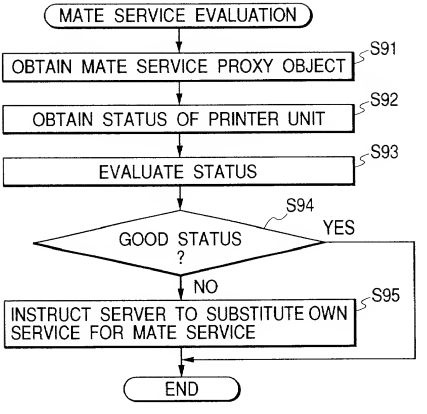

MATE SERVICE EVALUATION
OBTAIN MATE SERVICE PROXY OBJECT
S81
START TIMER
S82
OPEN FILE
S83
WRITE TEST DATA
S84
READ WRITTEN DATA
S85
CLOSE FILE
S86
STOP TIMER
S87
WITHIN PREDETERMINED TIME DURATION ?
S88
YES
NO
INSTRUCT SERVER TO SUBSTITUTE OWN SERVICE FOR MATE SERVICE
S89
END

FIG. 22


MATE SERVICE EVALUATION
OBTAIN MATE SERVICE PROXY OBJECT
S91
OBTAIN STATUS OF PRINTER UNIT
S92
EVALUATE STATUS
S93
GOOD STATUS ?
S94
YES
NO
INSTRUCT SERVER TO SUBSTITUTE OWN SERVICE FOR MATE SERVICE
S95
END